

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF THE CLAIMS

1. (Currently amended) A two-shaft vacuum pump comprising:
~~two shafts (12, 14) first and second rotor shafts, wherein one of the shafts (14) is driven by~~
~~an electric drive motor which drives one of the motor shafts (20) and comprises a motor rotor (26), the drive motor (20) being a synchronous motor, wherein the motor rotor (26) is being permanently excited; and~~
~~a synchronous motor power-limiting device (58) is provided which limits the motor power (P_M) to a fixed maximum motor power ($P_{M\max}$) in a limiting range above a fixed rated motor speed (n_N).~~
2. (Currently amended) The two-shaft vacuum pump according to claim 1, wherein the power-limiting means (58) adjusts, in the limiting range, the a phase angle between the a magnetic field of the rotor and the an electrical stator field to an angle other than 90°.
3. (Currently amended) The two-shaft vacuum pump according to claim 1, wherein the power-limiting means (58) reduces the a stator current in the limiting range.
4. (Currently amended) The two-shaft vacuum pump according to claim 1, wherein the power-limiting means device (58) adjusts, in the limiting range, the a phase angle between the magnetic field of the rotor and at least one of the electrical stator field and/or the stator current as a function of the motor speed.
5. (Currently amended) The two-shaft vacuum pump according to claim 1, wherein the driven rotor shaft (14) driven by the drive motor is of everhun

cantilevered configuration and is supported without a supporting bearing at a the motor-side end.

6. (Currently amended) The two-shaft vacuum pump according to claim 1, wherein the motor rotor (26) comprises a plurality of permanent magnets (38) arranged on the an outside surface of the a motor rotor body (34).

7. (Currently amended) The two-shaft vacuum pump according to claim 6, wherein the motor rotor (26) comprises a rotor enclosure (40) of a nonmagnetic material which externally encloses the motor rotor body (34) and the plurality of permanent magnets (38).

8. (Currently amended) The two-shaft vacuum pump according to claim 1, wherein on the a stator side, a can (42) of a nonmagnetic material is provided which for gas-tightly seals sealing the motor rotor (26) towards the motor stator (28).

9. (Currently amended) The two-shaft vacuum pump according to claim 8, wherein a pump cover (48) holding the can (42) and a stator casing (50) surrounding the motor stator (28) are integrally formed.

10. (Currently amended) The two-shaft vacuum pump according to claim 7, wherein at least one of the plurality of permanent magnets (38) of the rotor are made of includes rare earths earth elements.

11. (New) A two-shaft vacuum pump comprising:
a pair of motor shafts;
a synchronous, permanently excited drive motor directly connected to one of the motor shafts; and
a phase angle adjusting means for adjusting a phase angle between a motor rotor magnetic field and an least one of a motor stator magnetic field and a stator current.